



Current Topics in Histocompatibility & Transplantation

A Unique Continuing Education Opportunity

2020 Teleconference Series

Sponsored by
Sandra Rosen-Bronson, PhD, D(ABHI)
Georgetown University
Washington, DC

An ABHI Approved Continuing
Education Program

Current Topics in Histocompatibility and Transplantation for Technologists

This series of twenty interactive lectures, moderated by Dr. Sandra Rosen-Bronson, will reach hundreds of individuals through real-time, ninety minute in-depth audio conferences involving organizations and people from around the world. Without ever leaving your laboratory or office, you can listen to expert scientists and key decision makers thousands of miles away. Additionally, you can ask questions and get immediate answers, as well as listen to other participants' questions. This convenient and cost-effective educational tool will allow you to keep current in the field of histocompatibility testing and transplantation. Each participant will earn ABHI Continuing Education Credit (CEC) equal to 1.5 contact hours or 0.225 CE credits per lecture.

Frequently Asked Questions

How Does a Teleconference Work? Three to five days before each lecture, a CD with all teleconference materials is sent to your site coordinator. The CD will include: the lecture slides in two file formats (PowerPoint and PDF), handouts as a PDF file, and detailed conference instructions. At the scheduled time on the day of the lecture, your site must call the telephone number provided in the instructions. U.S. participants receive a toll-free telephone number. International participants may incur additional telephone charges.

All teleconferences are scheduled to start at 1:00 P.M. (Eastern Time) and last approximately ninety minutes. Once the teleconference has begun, participants view the slide show as they listen to the lecturer. There will be an opportunity to participate in a question and answer sessions.

What If the CD Doesn't Work Properly? If the CD you receive does not function properly, it will be replaced at no charge. As soon as you receive your conference packet, please verify that the CD contains the correct files and it is compatible with your computer system. If you experience any difficulty with the CD or have a problem opening the files, contact us immediately.

What If We Haven't Received the Packet? If you do not receive your conference packet, please contact us as soon as possible so that we can provide you with the materials.

What Equipment Do We Need On Site? You will need a computer with a monitor and a speakerphone.

How Do We Register? Complete the registration form and fax a copy of the form to (202) 944-2343. Send the original registration form with complete credit card information or a check made payable to Georgetown University to:

U.S. Mail:

Sandra Rosen-Bronson
Box 571438
Georgetown University
3900 Reservoir Road NW

Overnight Courier:

Sandra Rosen-Bronson
Preclinical Science Bldg, Room LE8H
Georgetown University
3900 Reservoir Road NW
Washington, DC 20007

To ensure your registration is processed, it is important to send it to the EXACT NAME and one of the ADDRESSES listed above and fax it to (202) 944-2343.

Further Questions: If you have any questions, please visit our website at www.ctht.info or contact us at:

Tel: (202) 784-5518

Fax: (202) 944-2343

Email: Andre.Thalberg@georgetown.edu

Thank you for your participation in our program!

2020 Teleconference Schedule

All dates are Tuesdays and all lectures begin at 1:00 P.M. (Eastern Time)

May 12, 2020

HLA: What's in a Name and Why It Is So Confusing

presented by Sandra Rosen-Bronson, PhD

MedStar Georgetown University Hospital Histocompatibility Laboratory, Washington, DC

Beginners in the field of histocompatibility testing will learn how HLA genes and the proteins they encode were first identified and named historically. They will learn how HLA nomenclature has evolved and will hear about challenges faced by histocompatibility and transplant professionals. Listeners will gain understanding about the relationship between HLA alleles, HLA antigens, and HLA specific antibodies.

May 19, 2020

Evaluating the Role for HLA Mismatched Unrelated Donor Transplantation

presented by Stephen Spellman, MBS

Immunobiology Research, Center for International Blood and Marrow Transplant Research
Minneapolis, MN

Participants will learn about current guidelines for donor HLA matching in hematopoietic cell transplant. They will hear about what is known concerning permissive mismatches as well as new research exploring ways to minimize the impact of HLA mismatches using novel agents for GVHD prophylaxis.

June 16, 2020

Serum Dilution as a Predictive Biomarker for Peri-Operative Desensitization

presented by Olga Timofeeva, PhD

MedStar Georgetown University Hospital Histocompatibility Laboratory, Washington, DC

Antibody-mediated rejection of allografts mediated by anti-HLA Donor Specific Antibody is a major barrier to successful transplantation. Although, therapeutic plasma exchange (TPE) is a first-line treatment for pre-transplant desensitization, indications for treatment regimens and treatment end-points have not been well established. Recently, it has been demonstrated that sera dilutions/titrations could guide regimens for effective peri-operative desensitization and early AMR treatment. This lecture will discuss how to evaluate dilution data to predict which antibodies will respond to peri-operative TPE. Case studies for sensitized heart, lung and kidney recipients will be presented.

June 23, 2020

Looking Under the Hood: Illumina MiSeq

presented by Claire Attwooll, PhD

Illumina, Inc., San Diego, CA

Participants will learn from an Illumina sequencing specialist about the instrument itself and the components required to successfully perform next generation sequencing. They will learn about flow cell design, the differences between random and patterned flow cells, interpreting flow cell charts, MiSeq chemistry, run metrics, cluster generation, duplicate clusters, avoiding over- and under-clustering, analysis, quality assessment, and much more.

June 30, 2020

CAR T-Cells: The Good, The Bad, and the Ugly

presented by Alex Dorcy, BSN, RN, BMTCN

Stem Cell Transplant and Cellular Immunotherapy Program
Medstar Georgetown University Hospital, Washington, DC

Participants will learn the basics of what CAR T-cells are and how they are made as well as what type of patients may benefit from CAR T-cell therapy. They will also hear about the clinical journey of patients undergoing treatment including promising outcomes and life-threatening side effects.

July 14, 2020

**Antibody-Mediated Rejection Across Solid Organ Transplants:
Manifestations, Mechanisms, and Therapies**

presented by Nicole Valenzuela, PhD

UCLA Immunogenetics Center, Department of Pathology and Laboratory Medicine, Los Angeles, CA

Solid organ transplantation is a curative therapy for hundreds of thousands of patients with end-stage organ failure. However, long-term outcomes have not improved, and nearly half of transplant recipients lose their allografts within 10 years. One of the major challenges facing clinical transplantation is antibody-mediated rejection (AMR) caused by anti-donor HLA antibodies. Participants will learn about the clinical and histological manifestations of AMR. They will hear about the immunopathological mechanisms contributing to antibody-mediated allograft injury as well as current and emerging therapies.

July 21, 2020

Understanding ABO Blood Groups

presented by Mohamed Alsammak, MD

Temple University Hospital Transfusion Medicine, Philadelphia, PA

Participants will learn the basics of the ABO blood group system and its importance in organ transplant. They will learn about assessing ABO compatibility as well as modern typing methodologies.

July 28, 2020

Selecting and Implementing Laboratory Automation

presented by Brian Iglehart, MS, CHS

Johns Hopkins University Immunogenetic Laboratory, Baltimore, MD

Participants will hear about automation equipment options from a variety of vendors and will gain an understanding of the benefits and limitations of laboratory automation. They will learn about factors to consider when evaluating automation, how to get buy-in from management as well as technical staff, and how to manage personnel expectations.

August 11, 2020

The Paperless HLA Laboratory

presented by Julie Houp, CHS

University of Alabama, Birmingham, AL

Participants will learn about the advantages and challenges associated with going paperless in a histocompatibility laboratory. They will learn about things to consider such as conversion and accessibility of archived documents, documentation of review, reporting, security, and regulatory compliance.

August 25, 2020

Demystifying Natural Killer Cells

presented by Luis Hidalgo, PhD

University of Wisconsin HLA Laboratory, Madison, WI

Natural killer (NK) cells are a component of the innate immune system. They use a combination of activating and inhibiting receptors specific for HLA class I molecules to differentiate between autologous and allogeneic cells. During this lecture beginners in the field of histocompatibility testing will learn about the role of NK cells in transplant outcomes.

September 15, 2020
Machine Learning Strategies for Detecting Epistatic and Heterogeneous Associations in Precision Histocompatibility

presented by Ryan Urbanowicz, PhD
 Perelman School of Medicine University of Pennsylvania, Philadelphia, PA

Participants will learn what machine learning is and how researchers are exploring ways of using it to understand complex medical data. They will hear about studies focused on using machine learning tools for better donor-recipient matching and improving transplant outcomes.

September 29, 2020
Pre-Transplant Alloimmune Risk Assessment for Precision Medicine

presented by Chris Wiebe, MD
 University of Manitoba, Winnipeg, MB, Canada

Participants will learn about studies using HLA Matchmaker as a computational tool to assess donor-recipient HLA relatedness. They will hear about a novel approach to quantifying HLA molecular mismatch that potentially allows more precise classification of individuals into low, intermediate, or high alloimmune risk categories at the time of kidney transplant.

October 6, 2020
Looking Under the Hood: Luminex xMAP Technology

presented by Heather Darby, MSc
 Field Applications Scientist, Luminex Corporation, Austin, TX

Multi-Analyte Profiling (xMAP) technology is the basis for most solid phase assays commonly used in histocompatibility laboratories including single antigen bead antibody testing and probe-based RSO HLA typing. Participants will gain a better understanding of the underlying principles behind the xMAP technology.

October 13, 2020
Non-HLA Donor-Recipient Mismatches in Kidney Transplant

presented by Samira Farouk, MD
 Ichan School of Medicine at Mount Sinai, New York, NY

Although short-term kidney allograft survival has improved considerably, better long-term allograft survival remains an elusive goal. While current organ allocation algorithms consider HLA matching, it is likely that genomic differences between donors and recipients at non-HLA loci also play a role in “non-self” responses and ultimately affect long-term allograft survival. Participants will learn about existing data that suggest an association between non-HLA donor-recipient mismatches and kidney allograft outcomes. They will hear about emerging data suggesting putative mechanisms for the role of non-HLA mismatches in long-term allograft outcomes.

October 27, 2020
Beyond Antigens: Strategies for Utilizing HLA Amino Acid Sequence Data in the Organ Allocation System

presented by Loren Gragert, PhD
 Tulane University School of Medicine, New Orleans, LA

HLA antigen categories were originally defined by examining HLA specificities through the lens of the alloantibody. However, with the rapid discovery of new HLA alleles, there are increasing numbers of HLA molecules for which there is no HLA antibody reactivity data available. Participants will learn about current efforts to update the HLA Dictionary aimed at improving our ability to infer antibody reactivity for alleles not included on solid phase antibody panels. The speaker will discuss new algorithms for predicting serologic antigen labels for newly-described alleles and defining novel antigen categories based on amino acid polymorphisms.

November 3, 2020
**Understanding Common, Intermediated and Well-Documented HLA Alleles
 in World Populations: CIWD 3.0.0**

presented by Carolyn Hurley, PhD
 The C.W. Bill Young Marrow Donor Recruitment and Research Program
 Department of Oncology, Georgetown University, Washington, DC

Participants will learn about the new catalogue of common, intermediate and well-documented (CIWD) HLA alleles that has been compiled from over 8 million individuals using data from 20 unrelated hematopoietic stem cell volunteer donor registries. They will learn how the catalogue was generated as well as how to access and best utilize this valuable resource which represents a collection of global HLA frequencies and provides a clearer view of HLA diversity in the human population as a whole.

November 10, 2020
GO Halifaster

presented by Robert Liwski, MD, PhD
 Queen Elizabeth II Health Sciences Centre, Dalhousie University, Halifax, NS, Canada

Participants will hear about the latest modification to the optimized flow crossmatch protocol developed in Dr. Liwski's laboratory, Halifaster XM (GO Halifaster). They will learn how the new modified protocol decreases B cell crossmatch background and facilitates accurate interpretation.

November 24, 2020
Flowcytometry for the Novice

presented by Ricardo Lopez, MS
 Department of Pathology, King Fahad Specialist Hospital, Dammam, Saudi Arabia

Participants will learn key concepts of how flow cytometers function including fluidics, light scatter, signal measurement, and more. They will learn how to assess flow cytometric data and will hear tips on how to recognize and troubleshoot problematic data.

December 1, 2020
Non-Conforming Events and Root Cause Analysis

presented by Mary Libby, BS, CHS
 Allogen Laboratories, Cleveland Clinic Foundation, Cleveland, OH

Procedures don't always conform to QC requirements or go as planned and it can be difficult to know how to proceed. Participants will learn what non-conforming events are and how to deal with them. They will learn how to analyze the underlying cause of non-conforming events as well as how to develop measures for preventing their reoccurrence.

December 15, 2020
Chimerism Testing: Principles and Practice for the Novice

presented by Matthew Najor, PhD
 MedStar Georgetown University Hospital Histocompatibility Laboratory, Washington, DC

Chimerism testing is performed on patients who have received a hematopoietic stem cell transplant to assess donor engraftment and monitor for disease relapse. The test involves identifying recipient and donor genetic profiles followed by determination of the proportion of donor versus recipient cells in the recipient's blood or bone marrow. Participants will learn about the genetic markers commonly used to distinguish recipients and their donors as well as the strengths and weaknesses of multiple available test platforms.



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